

# Options for Closing the Gap on Forestry Management Measures

## January 2015

### Background/Context

Additional progress is needed in Oregon on the additional management measures for forestry that are necessary to achieve and maintain water quality standards and designated uses. The following describes how Oregon may choose to proceed to adopt additional protective forestry measures to satisfy the CZARA additional management measures for forestry and help with coho recovery.

### General CZARA Guidelines for Approval

There are two pathways for states to achieve an approvable program: 1) *regulatory program*; **OR** 2) *voluntary approach*. A voluntary approach requires that the State provide the following:

- a description of the voluntary programs, including the methods for tracking and evaluating those programs, Oregon will use to encourage implementation of the management measures;
- a legal opinion from the attorney general or an attorney representing the agency with jurisdiction for enforcement that such authorities can be used to prevent nonpoint pollution and require management measure implementation, as necessary; and
- a description of the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing authorities where necessary.
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### Reasonable Options for Oregon to Move towards Get to an Approvable CZARA Program and Address Limitations in Forestry That Affect Coho Recovery

- **Riparian Buffers**
  - **Medium and Small-Fish Bearing Streams: State currently pursuing regulatory program**
    - Current Deficiencies/Shortfall: ~~Small no-cut buffer~~ Inadequate riparian protections for small and medium fish-bearing streams. Do not ensure forest operations meet the State water quality standards for protecting cold water in small and medium fish bearing streams. ~~Creates temperature, erosion and sediment problems.~~ Inadequate riparian buffers are limiting coho recovery.(need to have NMFS/NOAA's weigh in on this statement)
    - Examples of State Actions Needed: 1) Complete riparian rule by end of 2015; 2) Rule should cover a ~~broad range of~~ medium and small-fish bearing streams; and 3) Rule should provide an ~~adequate~~ protective no cut

buffers with a wider riparian management zone consistent with National Marine Fisheries (NMFS) science.

**Ex. 5 - Deliberative**

## Ex. 5 - Deliberative

- **Small, Non-fish bearing streams:** State not currently pursuing a regulatory program; voluntary approach would need to address the following

- Current Deficiencies/Shortfall: No riparian protections buffers for small non-fish bearing streams. Do not ensure forest operations meet the State water quality standards for protecting cold water criterion. ~~Creates temperature, erosion and sediment problems for salmon spawning areas and downstream habitat.~~ Inadequate protections are limiting coho recovery. (need to have NMFS/NOAA's weigh in on this statement)
- Examples of State Actions Needed: 1) Adequate no cut buffer with a wider riparian management zone consistent with National Marine Fisheries (NMFS) science;

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- 2) Meet other elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>).
- **Roads: regulatory and/or voluntary approaches would need to address the following**
    - Current Deficiencies/Shortfall:
      - *Regulatory* - Recent rule changes and new policies do not sufficiently address water quality impairments associated with "legacy" roads, i.e. roads that do not meet current State requirements with respect to siting, construction, maintenance and road drainage, or impairments associated with the portion of the existing network where construction or reconstruction is not proposed.
      - *Voluntary* - ODF voluntary program does not ~~include~~ address legacy roads, nor has the state satisfied all elements needed for a voluntary program (see above)..
    - Examples of State Actions Needed: 1) Establish regulations and or policies that specifically address legacy roads and roads that do not meet current State requirements with respect to siting, construction, maintenance and road drainage, or impairments associated with the portion of the existing network where construction or reconstruction is not proposed. 2) Use voluntary approach that includes establishing a road survey or inventory program that considers both active, inactive, and legacy roads that have the potential to deliver sediment to

streams. Examples could include those similar to WA's and ID's; 3) 4) Develop ranking system to establish priorities for road repair or decommissioning; 4) 5) Develop a timeline for addressing priority road issues including retiring or restoring forest roads that impair water quality; 5) 6) Develop a reporting and tracking component to assess progress for remediating identified forest road problem.; 6) 7) **(For effective voluntary approach, 1-6 2-7 are needed as a package. The state must also meet other elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).**

- **Landslides: regulatory and/or voluntary approaches that could be established would need to address the following**
  - Current Deficiencies/Shortfall: Oregon does not have additional management measures for forestry in place to protect high-risk landslide areas to ensure water quality standards and designated uses are protected.
  - Examples of State Actions Needed: 1) Adopt similar harvest and road construction restrictions for all high-risk landslide prone areas with the potential to impact water quality and designated uses, not just those where landslides pose risks to life and property; ~~1-) Measures to protect landslide areas;~~ 2) Voluntary programs to encourage and incentivize forestry BMPs to protect high-risk landslide areas that have the potential to impact water quality and designated uses and ensure that roads are designed to minimize slope failure risk. BMPs could include employing no-harvest restrictions around high-risk areas and ensuring that roads are designed, constructed, and maintained in such a manner that the risk of triggering slope failures is minimized; 3) Voluntary programs could also include a scientifically rigorous process for identifying high-risk areas and unstable slopes based on field review by trained staff. Widely available maps of high-risk landslide areas could improve water quality by informing foresters during harvest planning ; 4) Integrate processes to identify high-risk landslide prone areas and specific best management practices to protect these areas into the TMDL development process. (For all voluntary programs, the state must meet all elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).
- **Spray Buffers for Aerial Application of Herbicides on Non-Fish Bearing Streams: regulatory and/or voluntary approach would need to address the following**
  - Current Deficiencies/Deficiencies: No spray buffer to protect non-fish bearing streams during the aerial application of herbicides.

Examples of State Actions Needed: 1) Adopt rules that would require spray buffers for the aerial application of herbicides along non-fish bearing streams. Oregon may wish to look toward spray buffer requirements neighboring states have established for ideas; or 2) Adopt no-cut riparian buffers for timber harvest along non-fish bearing streams, which, by default, would also provide a buffer during aerial spraying. Otherwise, the state may choose to pursue a voluntary approach by doing the following: 1) Expand guidelines for voluntary buffers or buffer protections for the aerial application of herbicides on non-fish bearing streams; 2) Educate and train aerial applicators of herbicides on the new guidance and how to minimize aerial drift to non-fish bearing streams; 3) Revise ODF Notification of Operation form required prior to chemical applications on forestlands to include a check box for aerial applicators to indicate they must adhere to FIFRA labels for all stream types, including non-fish bearing; 2); 4) Provide better maps of non-fish bearing streams and other sensitive sites and structures to increase awareness of these sensitive areas that need protection among the aerial applicator community; and 5) Encourage the use of GPS technology, linked to maps of non-fish bearing streams, to automatically shut off nozzles before crossing non-fish bearing streams.

(For all voluntary programs, the state must meet all elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>))

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## Options for Closing the Gap on Forestry Management Measures

January 2015

### Background/Context

Additional progress is needed in Oregon on the additional management measures for forestry management measures that are necessary to achieve and maintain water quality standards and designated uses so that they are protective of water quality and fish habitat. The following describes how Oregon may choose to proceed to adopt additional protective forestry measures to satisfy the CZARA additional management measures for forestry and help with and close the gap for purposes of CZARA and coho recovery.

**Comment [AC1]:** The add MMs are not the same as the actual forestry MM. Need to be clear.

**Comment [AC2]:** Important to be consistent with statutory lang.

**Comment [AC3]:** I think we need to make this statement clearly. Doing this will enable them to address the CZARA add MMs for forestry. And will help with coho recovery (but isn't all they did for coho, or may CZARA, for that matter...depending on Ag and public comments on other parts of OR's program we have already given interim approval too.

### General CZARA Guidelines for Approval

There are two pathways for states to achieve an approvable program: 1) *regulatory program*; OR 2) *voluntary approach*. A voluntary approach requires that the State provide the following:

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- a description of the voluntary programs, including the methods for tracking and evaluating those programs, Oregon will use to encourage implementation of the management measures;
- a legal opinion from the attorney general or an attorney representing the agency with jurisdiction for enforcement that such authorities can be used to prevent nonpoint pollution and require management measure implementation, as necessary; and
- a description of the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing authorities where necessary.
- a program description, monitoring, tracking, and an enforceable authority to back up the voluntary program. If the State chooses to pursue a voluntary approach, the State needs to identify state enforcement authorities that can be used to prevent nonpoint pollution and expressly commit to use those authorities if voluntary measures are not complied with or where voluntary measures are inadequate in delivering the needed protections. The State needs to describe the mechanism or process that links the implementing agency with the enforcement agency.

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Reasonable Options for Oregon to mMove towards Get to an Approvable CZARA Program and Address Limitations in Forestry That Affect Coho Recovery

**Comment [AC4]:** Need to make sure language is consistent with EP&M guidance.

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**Comment [AC5]:** Or Could say: "Satisfy the CZARA Additional Management Measures for Forestry and Help With Coho Recovery" (see also comment above).

- **Riparian Buffers**
  - **Medium and Small-Fish Bearing Streams:** State currently pursuing regulatory program

- Current Deficiencies/Shortfall: ~~Small no-cut buffer~~ Inadequate riparian protections for small and medium fish-bearing streams. Do not ensure forest operations meet the State water quality standards for protecting cold water in small and medium fish bearing streams. ~~Creates temperature, erosion and sediment problems.~~ Inadequate riparian buffers are limiting coho recovery. (need to have NMFS/NOAA's weigh in on this statement)
- Examples of State Actions Needed: 1) Complete riparian rule by end of 2015; 2) Rule should cover ~~a broad range of~~ medium and small-fish bearing streams; and 3) Rule should provide an adequate protective no cut buffers with a wider riparian management zone consistent with National Marine Fisheries (NMFS) science.

**Comment [AC6]:** Our decision doc does not discuss erosion/sediment problems related to rip protection so agree with Alan's edit to strike this language.

Ex. 5 - Deliberative

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- Small, Non-fish bearing streams: State not currently pursuing a regulatory program; voluntary approach would need to address the following

- Current Deficiencies/Shortfall: No riparian protections buffers for small non-fish bearing streams. Do not ensure forest operations meet the State water quality standards for protecting cold water criterion. ~~Creates temperature, erosion and sediment problems for salmon spawning areas and downstream habitat.~~ Inadequate protections are limiting coho recovery. (need to have NMFS/NOAA's weigh in on this statement)
- Examples of State Actions Needed: 1) Adequate no cut buffer with a wider riparian management zone consistent with National Marine Fisheries (NMFS) science;

**Comment [AC7]:** I agree with Alan's comments. This may be painting ourselves into a corner we don't want to be in and is not consistent with statements in our decision doc. Also, this would be holding OR to higher standard that we have WA and CA.

Perhaps changing the language to something along the lines of "Rule should strive to provide protective no cut buffers with wider riparian management zone consistent with National Marine Fisheries (NMFS) science . Riparian protections comparable to CA and WA would also be acceptable."

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**Comment [AC8]:** Agreed: See earlier comment about concern with holding OR to higher standard than WA or CA.

- 2) Meet other elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/cpmmemo.pdf>) Monitoring, tracking, and reporting similar to other ODF programs for other tree harvests; and 3) Identify ODF and DEQ general authorities for enforcing changes in critical areas when voluntary measures are not implemented.

**Comment [AC9]:** Rather than resumerize what OR needs to do for voluntary programs and risk mis-stating or missing something recommend just referring them to the bullets above or the EP&M memo for more detail.

- **Roads: regulatory and/or voluntary approaches would need to address the following**

- Current Deficiencies/Shortfall:

- *Regulatory* - Recent rule changes and new policies do not sufficiently address water quality impairments associated with "legacy" roads, i.e. roads that do not meet current State requirements with respect to siting,

construction, maintenance and road drainage, or impairments associated with the portion of the existing network where construction or reconstruction is not proposed.

- *Voluntary* - ODF voluntary program does not ~~include~~ address legacy roads, ~~nor has the state satisfied all elements needed for a voluntary program (see above).~~ ~~Voluntary program does not include monitoring and tracking nor does identification of enforceable authorities to back-up voluntary program.~~
- Examples of State Actions Needed: 1) Establish regulations and or policies that specifically address legacy roads and roads that do not meet current State requirements with respect to siting, construction, maintenance and road drainage, or impairments associated with the portion of the existing network where construction or reconstruction is not proposed. 2) Use voluntary approach that includes establishing a road survey or inventory program that considers both active, inactive, and legacy roads that to include legacy roads in road inventory; 3) Include legacy roads in roads inventory, including legacy roads have theing potential to deliver sediment to streams. Examples could include those similar to WA's and ID's; 4) Develop ranking system to establish priorities for road repair or decommissioning; 5) Develop a timeline for addressing priority road issues including retiring or restoring forest roads that impair water quality. 6) Develop a reporting and tracking component to assess progress for remediating identified forest road problem. 7) Monitor and track voluntary measures. Examples could include those similar to WA's and ID's; 8) Identify ODF and DEQ general authorities for enforcing changes in critical areas when voluntary measures are not implemented. **(For effective voluntary approach, 1-6 2-7 are needed as a package. All voluntary approaches The state must also meet other elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>) need monitoring, tracking and identification of enforcement authorities that can be used if voluntary approach fails to achieve the desired results.)**
- **Landslides: regulatory and/or voluntary approaches that could be established would need to address the following**
  - Current Deficiencies/Shortfall: Oregon does not have additional management measures for forestry in place to protect high-risk sites-landslide areas to ensure water quality standards and designated uses are protected.
  - Examples of State Actions Needed: 1) Adopt similar harvest and road construction restrictions for all high-risk landslide prone areas with the potential to impact water quality and designated uses, not just those where landslides pose

**Comment [AC10]:** I'm hesitant referring to WA and ID here. I don't think Tech Team has specifically looked at WA and ID's road MMs. These states weren't conditioned on add MMs related to forestry roads.

**Comment [AC11]:** Can combine 2&3 into one item. Also revised to be consistent with lang. in the decision doc.

### Ex. 5 - Attorney Client

**Comment [AC13]:** Just refer them to standard voluntary program requirements.

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**Comment [AC14]:** Rather than resummize what OR needs to do for voluntary programs and risk mis-stating or missing something recommend just referring them to the bullets above or the EP&M memo for more detail.

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**Comment [PC15]:** Need short description of current inadequacy.

risks to life and property; 1) ~~Measures to protect landslide areas~~; 2) Voluntary programs to encourage ~~and incentivize~~ forestry BMPs to protect high-risk landslide areas ~~that have the potential to impact water quality and designated uses and ensure that roads are designed to minimize slope failure risk. BMPs could include employing no-harvest restrictions around high-risk areas and ensuring that roads are designed, constructed, and maintained in such a manner that the risk of triggering slope failures is minimized~~; 3) ~~Voluntary programs could also include a scientifically rigorous process for identifying high-risk areas and unstable slopes based on field review by trained staff. Widely available maps of high-risk landslide areas could improve water quality by informing foresters during harvest planning~~ Monitor and track voluntary measures (Examples could include those similar to Washington's and Idaho's programs); 4) ~~Integrate processes to identify high-risk landslide prone areas and specific best management practices to protect these areas into the TMDL development process. Identify ODF and DEQ general authorities for enforcing changes in critical areas when voluntary measures are not implemented.~~ (For all voluntary programs, the state must meet all elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)). ~~All voluntary approaches need monitoring, tracking and identification of enforcement authorities that can be used if voluntary approach fails to achieve the desired results.~~)

**Comment [AC16]:** Added option from decision doc.

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**Comment [AC17]:** Rather than resummize what OR needs to do for voluntary programs and risk mis-stating or missing something recommend just referring them to the bullets above or the EP&M memo for more detail.

- **Spray Buffers for Aerial Application of Herbicides on Non-Fish Bearing Streams: regulatory and/or voluntary approach would need to address the following**

- Current Deficiencies/Deficiencies: No spray buffer to protect non-fish bearing streams during the aerial application of herbicides from directly application to water.

Examples of State Actions Needed: 1) Adopt rules that would require spray buffers for the aerial application of herbicides along non-fish bearing streams. Oregon may wish to look toward spray buffer requirements neighboring states have established for ideas; or 2) Adopt no-cut riparian buffers for timber harvest along non-fish bearing streams, which, by default, would also provide a buffer during aerial spraying If the state adopts adequate riparian protections for non-fish bearing streams, it may suffice as a protective herbicide spray buffers. Otherwise, the state may choose to pursue a voluntary approach by doing the following: 1) Expand guidelines for voluntary buffers or buffer protections for the aerial application of herbicides on non-fish bearing streams; 2) Educate and train aerial applicators of herbicides on the new guidance and how to minimize aerial drift to non-fish bearing streams; 3) Revise ODF Notification of Operation form required prior to chemical applications on forestlands to include a check box for aerial applicators to indicate they must adhere to FIFRA labels for all stream types, including non-fish bearing to add a check box for

**Comment [AC18]:** Note: Revised for consistency with lang. in last draft of pesticides section I saw but I believe their may be a newer version so Jenny, please confirm this still aligns with latest draft.

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**Comment [AC19]:** I'm still unsure how this would be beyond the BMPs the guidance already includes. Tech Team is still resolving this issue and how/if this should be stated. May be premature to include bullet on guideline revisions in this draft to the state unless Jenny or others can clarify.



aerial applicators to certify that they will adhere to FIFRA labels for all stream types; 2) ~~Guidelines for voluntary buffer protections for aerial application of herbicides on non-fish bearing streams~~; 3) ~~Provide better maps of non-fish bearing streams and other sensitive sites and structures to increase awareness of these sensitive areas that need protection among the aerial applicator community~~; and 5) ~~Encourage the use of GPS technology, linked to maps of non-fish bearing streams, to automatically shut off nozzles before crossing non-fish bearing streams~~. Monitor and track voluntary measures using existing pesticide regulations; 4) Explore ODF and DEQ general authorities for enforcing changes in critical areas when voluntary measures are not implemented.

• (For all voluntary programs, the state must meet all elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>))

**Comment [PC20]:** Help me out here. What exactly are we saying here or asking for?

**Comment [AC21]:** See revised Option 1 for voluntary approach but this has not been resolved yet in tech team.

**Comment [AC22]:** Rather than resummmerize what OR needs to do for voluntary programs and risk mis-stating or missing something recommend just referring them to the bullets above or the EP&M memo for more detail.

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